

AMENDMENTS TO THE SPECIFICATION:

Please add the following new paragraphs at the end of the specification.

It will be clear that the opening of the magazine 19 leading into the plug guide 11 is adapted to complete the section of the zone having an enlarged section 21. The rotation of the last fastening assembly (13,15) is therefore not obstructed in the latter.

The zone having an enlarged section extends longitudinally over a distance H. This distance corresponds at least to the length h of a sleeve 15 increased by the loading stroke (L - L') downstream in the direction of displacement of the piston for firing when the plug guide 11 is in the safety position. In this manner, during the loading of the device 10, the plug guide 11 ascends without changing the section for the sleeve 15 which is situated in the plug guide 11 in the firing position. The connection with the plug guide 11 portion having a diameter D corresponding to the diameter of a sleeve 15 without the bridges 16 is produced here by a truncated portion 22. The latter allows for correct centring of the fastening assembly (13,15) when this assembly (13,15) is driven by the piston and when it passes from the zone having an enlarged section 21 to the zone having a non-enlarged section having diameter D, i. e. to the remainder of the bore of the plug guide 11. In this latter zone, the half bridges 16 are flattened against the surface 18 of the bore of the plug guide 11.

The zone having an enlarged section 21 in this case extends longitudinally downstream over the distance $H = h + (L - L')$ from the upstream end of a sleeve 15 when it is introduced into the plug guide 11. Upstream, the person skilled in the art will decide whether or not to extend this zone having an enlarged section or to adapt the section to the diameter of the piston.

The operation of the fastening device 10 of the invention will now be described in more detail.

A strip 14 of fastening assemblies (13,15) is received in the magazine 19. The assembly (13, 15) opposite the return spring is introduced into the plug guide 11, which is in the safety position. This assembly (13,15) is contained, together with its bridges 16, in the zone of the plug guide 11 with an enlarged section 21, dimensioned to this end. The plug guide 11 is brought to bear against the substrate material by the user and is inserted into the casing 20 as far as its firing position. The plug guide 11 slides freely around the sleeve 15 of the assembly (13,15) contained therein as a result of the downstream extension of its zone having an enlarged section 21 over the length (L-L') of its loading stroke, wherein the downstream end of the sleeve 15 can come to bear against its truncated portion 22 at the end of the stroke. The piston is driven by the explosive mixture upon firing and drives the assembly (13,15) into the plug guide 11, the centring of this assembly (13,15) being facilitated by the truncated portion 22 for connection with the zone of the plug guide 11 having a non-enlarged section. The bridges 16 of the assembly (13,15) rigidly connected to the strip 14 are sheared. They are then flattened, together with the bridges 16 which are free, against the surface 18 of the bore of the plug guide 11. The fastener 13 is then introduced into the substrate material.

As a result of the departure of the assembly (13,15) from the plug guide 11 and of the force exerted by the return spring, the next assembly (13,15) is introduced into the plug guide 11 when the latter has resumed its safety position and the piston has ascended to the firing position. The device 10 then functions in the same manner for each of the assemblies (13,15) until the last one. This last assembly, which is not rigidly connected to any other, can be made to rotate about its axis by friction against, inter alia, a wall of the magazine 19 when it is introduced into the plug guide 11. This rotation has no influence on the positioning of this last assembly (13,15) in the plug guide 11, as it is allowed for by the zone having an enlarged section 21.